#### Anton CAMACHO 52, rue du Faubourg Saint Martin 75010 Paris France

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### Education

Date of birth : 9th of April 1985 Nationalities : French and Spanish

2008–2011	PhD Student in Applied Mathematics. Thesis : Stochastic Mo- delling in Epidemiology with Applications to Influenza With Pr. Bernard Cazelles and Pr. Amaury Lambert Ecole Normale Su- périeure, Paris, France
2007–2008	MSc. in Applied Mathematics. Specialization : Mathematical Modelling in Biological and Medical Sciences Graduated Summa Cum Laude University Paris VI – Pierre et Marie Curie, Paris, France
2003-2008	MSc. Engineering in Bioinformatics and Modelling. National Institute of Applied Sciences, Lyon, France

# Work Experience

2010 (4 months)	Master's Student Supervisor Quentin Herreros (Master's Student in Interdisciplinary Approaches to Life Science) : Assessing the Use of Phenomenological Transmission Functions to Model Disease Spread on Contact Networks Ecole Normale Supérieure, Paris, France
2009–2011	Seminar Teacher : Ecology and Dynamics of Structured Po- pulations Msc. University Level (3 hours/year) Ecole Normale Supérieure, Paris, France
2008–2011	<b>Tutorial Teacher : Matricial and Vectorial Calculus</b> First-year University Level (64 hours/year) University Paris VI – Pierre et Marie Curie, Paris, France
2008 (6 months)	Intern in Applied Mathematics. Subject : On the Van Kampen Approach for Nonlinear Stochastic Epidemiological Models With Pr. Bernard Cazelles Ecole Normale Supérieure, Paris, France

# Special Skills

Languages : French (mother tongue), English (fluent) and Spanish (fluent) Informatics : Unix, LATEX, C/C++, Python, Java, R, Mathematica, Matlab, HTML, PHP, MySQL

### Publications

- 1. A. Camacho, S. Ballesteros, A.L. Graham, F. Carrat, O. Ratmann & B. Cazelles. (2011) Explaining Rapid Reinfections in Multiple-Wave Influenza Outbreaks : Tristan da Cunha 1971 Epidemic as a Case Study. Proceedings of the Royal Society B : Biological Sciences (In press)
- S. Ballesteros, A. Camacho & B. Cazelles. (2009) Introducing Gradual Antigenic Drift in Cocirculating Cross Reactive Antigenic Cluster Models. Proceedings of the 9th Conference on Computational and Mathematical Methods in Science and Engineering, 2009. Edited by Jesus Vigo Auiar et al., Salamanca, 2009, pp. 1471–1482
- 3. S. Ballesteros, L. Stone, **A. Camacho**, E. Vergu & B. Cazelles. Fundamental Irregularity of Regular Seasonal Influenza Epidemics : from Theory to Observation. (In revision)
- 4. A. Camacho, S. Ballesteros, A. Lambert & B. Cazelles. Estimating Variability in Stochastic Nonlinear Epidemiological Models : Assessing the Use of the Linear Noise Approximation. (In preparation)
- 5. S. Ballesteros, A. Camacho, E. Vergu & B. Cazelles. The Transition from Invasion to Persistence for Influenza Antigenic Units. (In preparation)

### Workshop and Congress Participations

- Dynamical Systems Applied to Biology and Natural Sciences. Estimating variability in stochastic nonlinear epidemiological models : an application to the transition from invasion to longterm persistence of emerging pathogens. 2–4 Feb. 2011, Lisbon University, Lisbon, Portugal (Oral communication)
- Conférence Modélisation Mathématique et Informatique des Systèmes Complexes.
  Analyse de séries temporelles par maximisation de la vraissemblance : étude et sélection de modèle.
  11-13 Oct. 2010, Paris, France (Oral communication)
- Ecology, Epidemiology and Evolution : Biological Processes and Artificial Analogues. Rapid influenza reinfection : likely mechanisms and potential impacts during a pandemic. 14-16 Sept. 2010, Warwick, UK (Oral communication)
- Journées MAS. Time series analysis via maximum likelihood. From theory to practice. 31 Aug.-3 Sept. 2010, Bordeaux, France (Oral communication)
- Computational and Mathematical Population Dynamics. Gradual & punctuated antigenic drift for influenza evolution. A quantitative approach based on time series analysis. 31 May–4 June 2010, Bordeaux, France (Oral communication)
- Chaos and dynamics in biological networks. Assessing the use of phenomenological transmission functions to model disease spread on contact networks. 3–8 May 2010, Cargèse, France (Oral communication)

- Multiply Structured Populations in Biology. Disentangling between different mechanisms for explaining observed two-wave influenza epidemics. 1–3 July 2009, Bath, UK (Oral communication)
- $R_0$  and Related Concepts : Methods and Illustrations. Limitations of the van Kampen approach for stochastic epidemiological models. 29–31 Oct. 2008, Paris, France (Poster)